



# Independent Aggregation

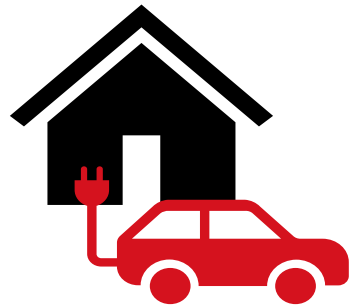
General information

09/2023

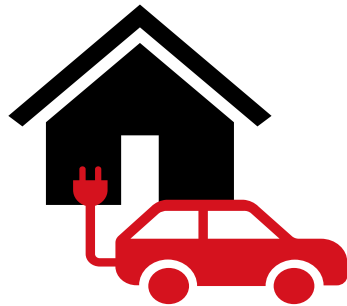
**FINGRID**

# What is meant by aggregation?

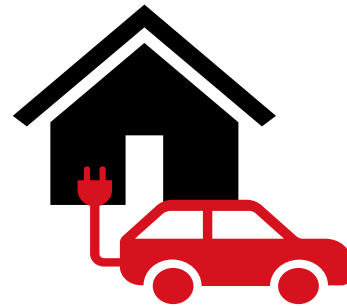
## AGGREGATION



Resource 1



Resource 2



Resource 3

Aggregation refers to combining flexible electricity production, consumption or storage resources into larger entities that can be offered to the electricity market.

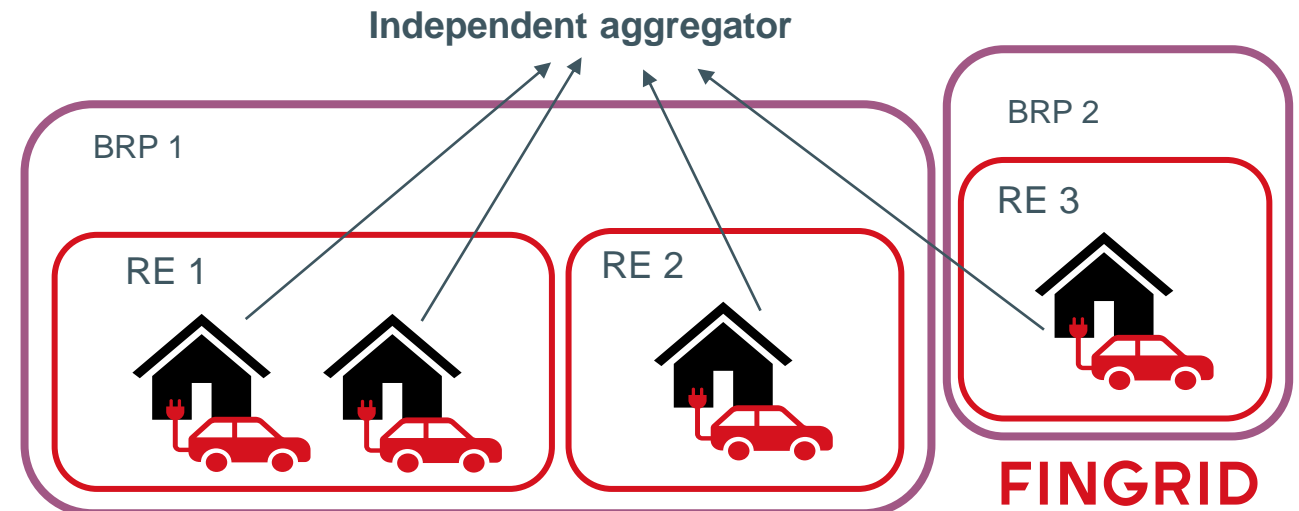
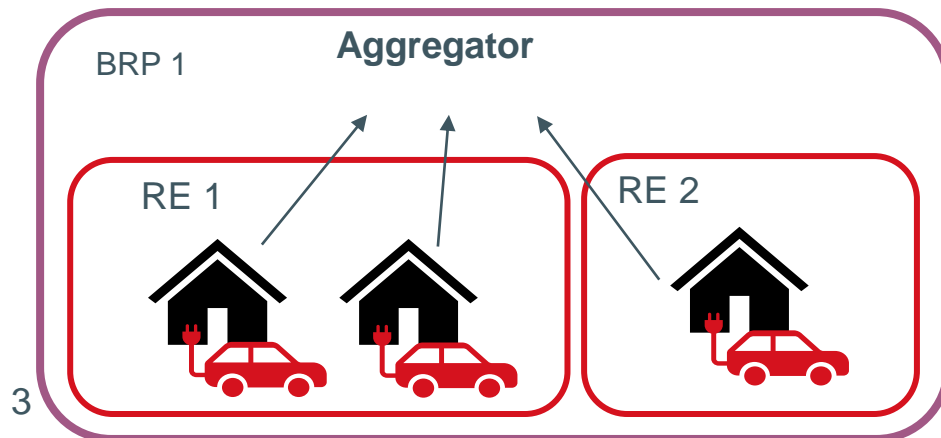
# Aggregation within the chain of open deliveries vs. independent aggregation

## Aggregation within the chain of open deliveries

- The aggregation is performed within the same chain of open delivery
- The aggregator needs to be the electricity retailer and/or the balance responsible party of the reserve resource
- Aggregation of resources within the chain of open delivery is allowed on all marketplaces

## Independent aggregation

- Aggregates flexible resources across the conventional chain of delivery
  - Thus the independent aggregator is not the electricity retailer nor the balance responsible party of the resource
- Independent aggregation is currently allowed in the frequency-controlled reserves (FCR-N, FCR-D, FFR) and in a FFR capacity market



# Independent aggregation in the reserve market

## FCR-D

- Independent aggregation allowed since 1<sup>st</sup> January 2017
- Minimum bid size: 1 MW
- **Capacity fee to the balance service provider (BSP)**
- **No energy correction nor compensation**
  - Activation has low impact on energy
- Independent aggregator does not have a balance responsible party (BRP). The reserve resource's BRP is the balance responsible party of its electricity supplier.

## FCR-N

- Independent aggregation allowed since 1<sup>st</sup> January 2018
- Minimum bid size: 0.1 MW
- **Capacity fee to the balance service provider (BSP)**
- **Energy correction and compensation**
  - Balancing energy is corrected, and energy compensation is fully paid to the balance responsible party (BRP)
- Independent aggregator does not have a balance responsible party (BRP). The reserve resource's BRP is the balance responsible party of its electricity supplier.

## FFR

- Independent aggregation allowed since 12<sup>th</sup> May 2020
- Minimum bid size: 1 MW
- **Capacity fee to the balance service provider (BSP)**
- **No energy correction nor compensation**
  - Activation has low impact on energy
- Independent aggregator does not have a balance responsible party (BRP). The reserve resource's BRP is the balance responsible party of its electricity supplier.

## aFRR capacity market

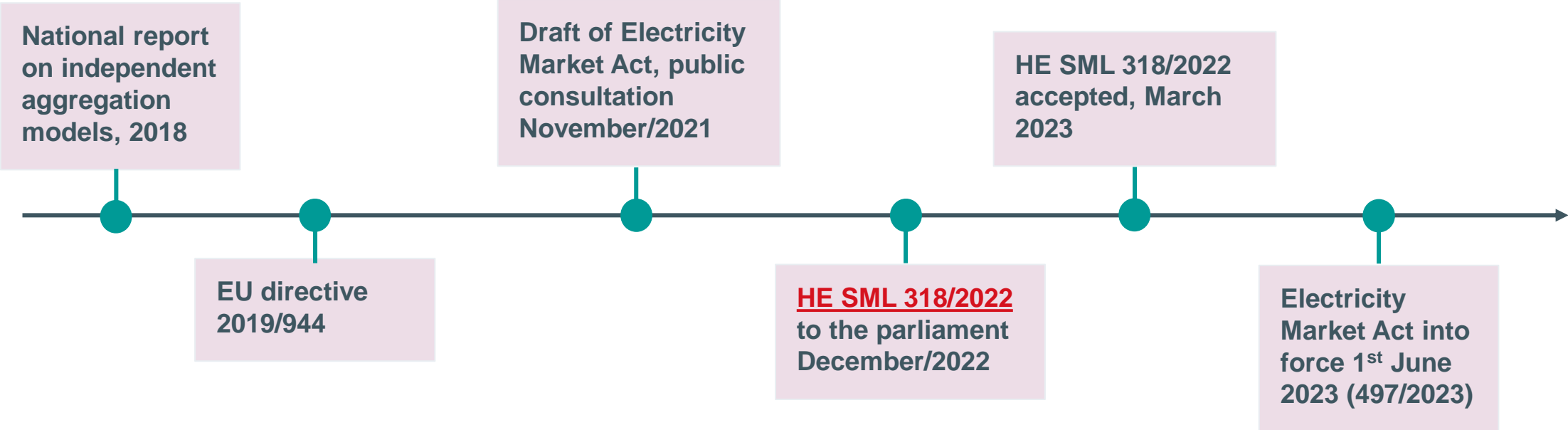
- Independent aggregation allowed since 22<sup>nd</sup> May 2023
- Minimum bid size: 1 MW
  - Resources with different BRPs cannot be aggregated into the same bid.
- **Capacity fee to the balance service provider (BSP)**
- **Energy correction and compensation**
  - Balancing energy is corrected, and a full energy compensation is paid to the balance responsible party (BRP)
- Independent aggregator does not have a balance responsible party (BRP). The reserve resource's BRP is the balance responsible party of its electricity supplier.
- The currently used independent aggregator model in the aFRR capacity market is temporary and will change when the aFRR energy market is introduced.

Independent aggregation is not yet possible in the mFRR market. Before it can be introduced in the mFRR and aFRR energy markets, a compensation model must be developed, and improvements need to be done in information systems.

# Electricity Market Act (497/2023) & **Independent aggregation in Finland**

- Contents of independent aggregation in the Finnish law ("Laki sähkömarkkinalain muuttamisesta" 497/2023) are based on
  - **EU directive (2019/944)**
  - **The national final report on independent aggregation models**, the report was ordered by Älyverkkotyöryhmä ("smart grid working group") in 2018.
- Law into force **1st June 2023**
- Law sets a task for **Fingrid to define the financial compensation model**, with public consultation, acceptance of Energiavirasto (Energy Authority)
- The Government may subsequently issue decrees on the verification of demand response offered by an independent aggregator, how it is accounted for in the imbalance settlement, and how the payment of financial compensation is managed

# Legislation process of independent aggregation



Electricity market act states that further regulations regarding independent aggregation may be given as a government decree.

# Energy correction and compensation

- *Independent Aggregator shall compensate the costs arising from activation of flexibility on the day-ahead, intraday and balancing markets for the customer's open supplier or balance responsible party – [Electricity market act 497/2023](#), 72 a §*
  - Refers to energy compensation
- *The imbalance caused by activation of flexibility needs to be corrected in the customer's open supplier's or BRP's power balance – [Electricity market act 497/2023](#), 72 a §*
  - Refers to energy correction
- In Fingrid's terms and conditions of the reserve market products, the term "processing of energy" refers to both energy compensation and energy correction
  - In the terms and conditions "Energy Fee" refers to energy compensation, i.e., compensation that is paid for balancing energy
  - In the terms and conditions, "Balancing Energy" refers to the balancing energy caused by the activation of reserve resources. The balance deviation caused by the activation of reserve resource is corrected for the BRP of the the reserve resource, i.e., energy correction is done towards the BRP.